## **REMARKS**

The objection under 35 USC 132 and rejection under 35 USC 112, first paragraph, seems to result from a misapprehension of the differences between physical continuity, which might exclude a seam, and electrical continuity, which would not. Nevertheless, total electrode coverage is now described and claimed on the basis of the foil originally described and shown, for example.

It can be seen in Fig. 9 specifically that the aluminium strip electrode layer 32 totally covers the pipe, because the upstanding portion of the strip 32 (at the reference character) shows that there would be no radial holes. Conclusively, therefore, the electrode layers are disclosed in the original specification and drawing as totally covering.

The rejection of claim 1 under 35 USC 102 for anticipation by the cited Nishino patent relies on the speculation that the plastic adhesive layer 13 of the patent is electrically insulating, as claimed, but there is no disclosure in the patent that it is and the references supporting traversal on this basis supplied with the Response of January 6, 2005, show that such speculation is unsupported.

Unsupported speculation as to the qualities of that apparatus can form no basis for rejecting claim .... <u>In re Glass</u>, 176 USPQ 529, 532 (CCPA 1973).

Nevertheless, claim 1 is also amended according to original Fig. 7 to require the insulating layer 32b to be thicker than the electrode layers 32a, 32c. This assures the defeat of a rejection under 35 USC 102, which requires every element claimed in the reference, which it is not. Moreover, the thicker insulation, which assures its insulating function, is contrary to

ordinary skill in the adhesive art, which would make the adhesive layer of the Nashino patent that is thought insulating as thin as possible to save adhesive. Therefore, claim 1 would not be obvious under 35 USC 103 from the Nashino patent, either.

The rejection of claim 1 under 35 USC 103 for obviousness from the cited Brown and Schmidt patents is traversed by the totally covering electrode layers now claimed. Neither patent discloses this (see particularly column 10, lines 10-14, of Schmidt) and, therefore, the claims as a whole cannot be obvious from a combination of patents that neither disclose nor suggest an element of the whole claim.

The same traversal applies to the rejection of claim 5 under 35 USC 103 for obviousness from the Schmidt and Thomas patents. The Schmidt patent discloses a solid cable and not a hollow pipe structure. It is unsupported speculation that Schmidt teaches a hollow pipe that just happens to be filled solidly; there is no suggestion in the patent that it should be hollow, as claimed.

Unsupported speculation as to the qualities of that apparatus can form no basis for rejecting claim .... <u>In re Glass</u>, 176 USPQ 529, 532 (CCPA 1973).

That the Thomas patent discloses that it is old and well known to foam plastic materials "if certain properties are desired" is insufficient without to complete a rejection from Schmidt because only the application teaches what certain properties are desired as claimed.

Specifically neither Schmidt nor Brown discloses the feature that the <u>outer</u> electrode layer performs a total coverage. Thus, the combination of Brown and Schmidt does not teach the invention in which both the inner <u>and</u> the <u>outer</u> electrode layers perform a total coverage.

To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher. W.L. Gore & Associates, Inc. v Garlock, Inc., 220 USPQ 303, 313 (Fed. Cir. 1983).

Reconsideration and allowance are, therefore, requested.

Respectfully abmitted

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